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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Page, et al.) Examiner: Grendzynski, M.
Serial No. 09/944,177)
Filing Date 8/30/01) Art Unit: 1774
For: PRINT MEDIA PRODUCTS FOR)
GENERATING HIGH QUALITY,)
WATER-FAST IMAGES AND)
METHODS FOR MAKING THE)
SAME)

DECLARATION UNDER 37 C.F.R. §1.131

To the Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

We, Loretta Ann Grezzo Page and Richard J. McManus being duly sworn, depose and state as follows:

1. We are the named inventors of the inventions covered by and claimed within the above-described patent application (Serial No. 09/944,177 - hereinafter "the '177 application" or "the present application"). We conceived of and actually reduced to practice in the United States of America prior to January 26, 2001 (the filing date associated with U.S. Patent No. 6,419,355 to Bermel et al. - hereinafter "the '355 patent"), the inventions described and claimed in the present application including but not limited to the print media product of Claim 4 with particular reference to the ink-receiving layer associated therewith. Claim 4 (in its current form) is as follows:

4. A print media product comprising:
a substrate; and

at least one ink-receiving layer supported by said substrate, said ink-receiving layer being comprised of:

at least one pigment composition comprised of a material selected from the group consisting of boehmite, pseudo-boehmite, and a mixture thereof, said material being present in said ink-receiving layer in an amount equal to at least about 65% by weight of said ink-receiving layer; and

at least one ink fixative in combination with said pigment composition in said ink-receiving layer, said ink fixative comprising at least one cationic emulsion polymer which is compatible with said material selected from the group consisting of boehmite, pseudo-boehmite, and a mixture thereof and substantially avoids inducement of gellation and increases in viscosity of said material so that said ink-receiving layer may be comprised of at least about 65% by weight of said material.

2. Prior to January 26, 2001, we jointly and successfully produced in the United States of America the print media product listed above and covered by Claim 4 (with specific reference to the novel formulation used to fabricate the ink-receiving layer). In particular, the claimed ink-receiving layer was manufactured by us and placed on a substrate (conceived of and actually reduced to practice) prior to January 26, 2001 as disclosed in our laboratory notebooks.

3. Collectively attached as Exhibit A are photocopies of two pages from our laboratory notebooks showing and describing the above-stated invention of Claim 4 (with particular reference to the claimed ink-receiving layer and ingredients therein). These pages will now be explained in detail, with such pages clearly demonstrating conception and actual reduction to practice of the invention of Claim 4 prior to the aforementioned January 26, 2001 date.

A. Laboratory Notebook Page 1:

On Page 1 of Exhibit A, Trial No. 3 is noted which is highlighted in yellow. This Trial involved the preparation of an ink-receiving layer which first contained a composition identified

as “Dispal”. The “Dispal” material is, in fact, **boehmite**. Attached as Exhibit B is a product information sheet from the manufacturer of the “Dispal” product (Condea Vista Company of Houston, TX [USA]) which confirms that the “Dispal” composition is boehmite (as per Claim 4).

Thereafter, it is stated on Page 1 of Exhibit A that the product of Trial No. 3 contains “Primal PR-26”. This composition (an ink fixative) is extensively discussed in the Specification of the present patent application (Serial No. 09/944,177) on Pages 61 (lines 7 - 30) and Page 62 (lines 1 - 19). It specifically involves a **cationic emulsion polymer** as per Claim 4 (in particular, a cationic emulsion polymer of the quaternary amine variety which we have determined to be preferred in the current invention). As indicated in the above-listed portions of the Specification, the “Primal-26” material provides all of the benefits recited in Claim 4 including its ability to substantially avoid “inducement of gellation and increases in viscosity” of the pigment (e.g. boehmite) as claimed.

Next, regarding the quantity of boehmite that is used, it is stated in the right-hand table at the top of Page 1 of Exhibit A that a 100:5 (e.g. 20:1) weight ratio of boehmite:cationic emulsion polymer is employed. In accordance with this dry weight ratio (and mathematically calculated therefrom), the quantity of boehmite employed in the ink-receiving layer of Trial No. 3 is approximately **95.24% by weight** which is well within the “at least about 65% by weight” quantity value recited in Claim 4.

Finally, it is also indicated on Page 1 of Exhibit A (see the highlighted statement at the bottom) that tests were conducted on the resulting product to analyze its gloss characteristics and buffability. In order to test for these characteristics, the composition used to produce the ink-receiving layer had to be coated onto a substrate which, in fact, it was. It is therefore clear from the information on Page 1 that a product having all of the features and characteristics recited in Claim 4 of the present application was conceived of and actually reduced to practice by us prior to January 26, 2001.

B. Laboratory Notebook Page 2:

On Page 2 of Exhibit A, Trial No. 2 is noted which is highlighted in yellow. This Trial involved the preparation of an ink-receiving layer which likewise contained a composition

identified as "Dispal". The "Dispal" material is, in fact, **boehmite** as recited in Claim 4 and discussed above (See Exhibit B).

Next, it is stated on Page 2 of Exhibit A that the product of Trial No. 2 also contained "Primal PR-26". As previously indicated, this composition (an ink fixative) is extensively discussed in the Specification of the present patent application (Serial No. 09/944,177) on Pages 61 (lines 7 - 30) and Page 62 (lines 1 - 19). It specifically involves a **cationic emulsion polymer** as per Claim 4 (in particular, a cationic emulsion polymer of the quaternary amine variety which we have determined to be preferred in the current invention). As discussed in the above-listed portions of the Specification, the "Primal PR-26" material provides all of the benefits recited in Claim 4 including its ability to substantially avoid "inducement of gellation and increases in viscosity" of the pigment (e.g. boehmite) as claimed.

Next, regarding the quantity of boehmite that is used, it is stated in the left-hand table in the middle of Page 2 of Exhibit A that a 100:20 (e.g. 5:1) weight ratio of boehmite:cationic emulsion polymer is employed. In accordance with this dry weight ratio (and mathematically calculated therefrom), the quantity of boehmite employed in the ink-receiving layer of Trial No. 2 on Page 2 is approximately **83.33% by weight** which is well within the "at least about 65% by weight" quantity value recited in Claim 4.

Finally, it is also indicated on Page 2 of Exhibit A (see the highlighted statement at the bottom) that tests were conducted on the resulting product to analyze its gloss and coating characteristics. In order to test for these characteristics, the composition used to produce the ink-receiving layer had to be coated onto a substrate which, in fact, it was. It is therefore clear from the information on Page 2 that a product having all of the features and characteristics set forth in Claim 4 of the present application was conceived of and actually reduced to practice by us prior to January 26, 2001.

C. Summary

As stated above and in accordance with Pages 1 and 2 of our laboratory notebook of Exhibit A, we conceived of and actually reduced to practice the entire invention of Claim 4 in the present application prior to January 26, 2001. In particular, Pages 1 and 2 indicate that a composition comprising: (1) at least about 65% by weight boehmite (a pigment); and (2) a

cationic emulsion polymer (an ink fixative) which is able to substantially avoid "inducement of gellation and increases in viscosity" of the pigment was manufactured and tested by us prior to January 26, 2001. This composition was then coated onto a substrate as stated above in connection with the information set forth on Pages 1 and 2 of Exhibit A.

4. All of the laboratory notebook pages associated with Exhibit A bear a date prior to January 26, 2001, with the inventions disclosed by these pages having been conceived of and actually reduced to practice by us prior to January 26, 2001 as outlined herein.

5. The dates on the laboratory notebook pages of Exhibit A have been obscured pursuant to our attorney's instructions and as authorized by Section 715.07 of the Manual of Patent Examining Procedure ("MPEP").

6. I, Loretta Ann Grezzo Page, hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: July 2, 2003 By: Loretta Ann Grezzo Page
Loretta Ann Grezzo Page

7. I, Richard J. McManus, hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: July 2, 2003 By: Richard J. McManus
Richard J. McManus

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Searching 1976 to present...

Results of Search in 1976 to present db for:
ACLM/"at least about": 55594 patents.
Hits 1 through 50 out of 55594

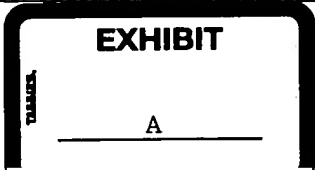
Next 50 Hits

Jump To

Refine Search

ACLM/"at least about"

PAT. NO.	Title
1 6,590,705	Optical film with co-continuous phases
2 6,590,344	Selectively controllable gas feed zones for a plasma reactor
3 6,590,239	Color filter image array optoelectronic microelectronic fabrication with a planarizing layer formed upon a concave surfaced color filter region
4 6,590,137	Multicomponent superabsorbent gel particles
5 6,590,136	Absorbent members for absorbing body liquids
6 6,590,116	Process for purifying siloxane
7 6,590,113	Process for treating oils containing antioxidant compounds
8 6,590,065	Polytrimethylene ether ester amide and use thereof
9 6,590,006	Macrocellular polyolefin foam having a high service temperature for acoustical applications
10 6,590,000	Defoaming of foams utilizing sonication
11 6,589,926	Dishwashing detergent compositions containing organic diamines
12 6,589,916	Method and composition for treating and promoting the growth of plants
13 6,589,908	Method of making alumina having bimodal pore structure, and catalysts made therefrom
14 6,589,895	Thulium-doped germanate glass composition and device for optical amplification
15 6,589,760	Methods of separating a corn fiber lipid fraction from corn fiber
16 6,589,725	Tankyrase H, compositions involved in the cell cycle and methods of use
17 6,589,722	Method for formulating a photographic developer composition and process conditions to optimize developed images for digital scanning



Page No. _____

Final Wet Weights
(grams)

	1	2	3
Dispall Slurry	25.030 ✓	25.030 ✓	25.030 ✓
Agefloc A50	0.571 ✓	0.000	0.000
Freetex 685	0.000	0.555 ✓	0.000
Primal PR-26	0.000	0.000	0.968 ✓

Chemical

	1	2	3
Dispall Slurry	100	100	100
Agefloc A50	5		
Freetex 685		5	
Primal PR-26			5

1. Sol'n very fluid, looks good
Very glossy, easy to buff

2. Sol'n starts to gel and get thick around edges but if stirred,
it goes right back in. foamy.
Semi-viscous

Buffed easily, tons of "plobbles" everywhere from foam

3. Very fluid Sol'n -

Very high gloss, easy to buff

EXHIBIT

A
Page 1

To Page No. _____

Witnessed & Understood by me,

Date

Invented by

Date

Recorded by

Page No.

Chemical	1
Dispal 9N6-80	100
Lactic Acid	2
Glyoxal	15
PVOH 523	10
TS	40

Final Wet Weights	1
(grams)	
Dispal 9N6-80	62.992 ✓
Lactic Acid	1.482 ✓
Glyoxal	23.622 ✓
PVOH 523	67.733 ✓
H ₂ O	44.17 ✓

Foamy Slurry so added defoamer
Also got very thick so added water

TS = 36.41%

Chemical	2
Dispal Slurry	100
Primal PR-26	20
TS	35

Final Wet Weights	2
(grams)	
Dispal Slurry	72.096
Primal PR-26	17.785

Thick so, added water
Did 8 ad, glossy, even coat

Viscosity =
3030 cp at 20 rpm
spindle #4
TS = 32.38%

EXHIBIT

A
Page 2

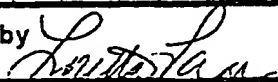
To Page 1

Witnessed & Understood by me,



Date

Invented by



Date

Recorded by

Graham Rono